

Create Instances

<code>multipass launch</code>	Creates an instance using a random name
<code>multipass info <instance></code>	Get info about an instance
<code>multipass find</code>	find out what images are available
<code>multipass launch <image></code>	launch an instance using the specified image
<code>multipass launch <image> [--name -n] <instance></code>	launch an instance and name it
<code>multipass launch [--cpus -c] 4 [--disk,-d] 20G [--mem,-m] 8G</code>	Create an instance with custom CPU number, disk, and RAM
<code>multipass launch <image> [--name,-n] primary</code>	An instance can obtain the primary status at creation time if its name is primary. A primary instance is the default argument for several commands, such as <code>shell</code> , <code>start</code> , <code>stop</code> , <code>restart</code> , and <code>suspend</code> and also automatically mounts our <code>\$HOME</code> directory in the instance.
<code>multipass launch --network en0 --network name=bridge0,mode=manual</code>	Create an instance specifying NICs. See https://multipass.run/docs/create-an-instance#heading--create-an-instance-with-multiple-network-interfaces

The `--network` option can be given multiple times, each one requesting an additional network interface (beyond the default one, which is always present, used to reach the outside world and used by multipass to communicate with the instance).

`--network` takes at most 3 `<key>=<value>`:

`name` — the only required value, it identifies the network, `mode` that is either `manual` or `auto` (try to auto join the net), `mac` to specify a mac address for the NIC

NIC: network interface controller

Create an instance with a custom DNS

<code>multipass launch --cloud-init systemd-resolved.yaml</code>	Creates an instance with a custom DNS
after the instance booted use the <code>netplan.io</code> approach	https://multipass.run/docs/create-an-instance#heading--the-netplanio-approach

In some scenarios the default of using the system-provided DNS will not be sufficient.

systemd-resolved.yaml cloud-init snippet:

```
#cloud-config
bootcmd:
- printf "[Resolve]\nDNS=8.8.8.8" > /etc/systemd/resolved.conf
- [systemctl, restart, systemd-resolved]
```

8.8.8.8 is a Google DNS

Remove or delete an instance

<code>multipass delete <instance></code>	Move an instance to the 'recycle bin'
<code>multipass delete --all</code>	Move all instances to the 'recycle bin'
<code>multipass recover <instance></code>	Recover an instance put to the 'recycle bin'
<code>multipass delete --purge <instance></code>	Permanently delete an instance
<code>multipass purge</code>	Empty the 'recycle bin'

Running a container with the Docker workflow

<code>multipass launch docker</code>	Creates a virtual machine running the latest version of Ubuntu, with Docker and Portainer installed.
<code>multipass exec docker docker</code>	Executes Docker in the instance



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Page 1 of 3.

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Running a container with the Docker workflow (cont)

multipass alias docker: Alias the docker command to our host command line. This will let us use the docker command as if Docker were running directly on our host machine. This command will return instructions showing how to add the new alias to our path. Simply copy and paste the command shown. It will likely be of this form: `PATH="$PATH:/home/<user>/snap/multipass/common/bin"`

docker run hello--world Works only if the alias is created.

multipass list Shows the IP addresses associated with the created Ddocker VM. The Portainer IP should start with a 10.

http://10.0.0.10 Shows the Portainer web interface.

po-rtainer-ip:9000

Portainer config

- 1) Set username and password
- 2) Select local docker env opt. and click connect
- 3) Click on the newly created "Local" environment to manage the Docker instance on our local VM.

see <https://multipass.run/docs/docker-tutorial>

Install

brew install bash-completion install bash completion if not already installed

brew install --cask multipass --cask option may be omitted

brew uninstall multipass uninstall multipass

brew uninstall --zap multipass uninstall multipass and data

multipass version to check the install and get the version

Modify an instance

multipass set client.primary-name=<instance name> Grant a regular instance the primary status

multipass set [local.<instance>].(cpu|disk|memory) Change CPU RAM DISK

see <https://multipass.run/docs/modify-an-instance>

Use an Instance

multipass shell <instance> Open a shell prompt inside an instance

multipass exec <instance> -- <cmd> Execute a command inside an instance

multipass start|suspend|stop <instance>[<instance>] Start, suspend or stop instances

multipass start|suspend|stop -all Start, suspend or stop all instances

Aliases on Instances

multipass alias <instance>:<cmd> <alias> defines an alias executed from the host, into the instance. ex: `multipass alias proxy:ls lsproxy`

multipass alias <instance>:<cmd> <alias> --no-map--working-directory Do not change the working directory on the instance to the mounted directory (in case the host folder on which executing an alias is mounted on the instance)

multipass aliases list defined aliases and their instances

multipass <alias> execute an alias

multipass unalias <alias>[<alias>] remove aliases

multipass unalias --all remove all aliases

Add the multipass bin folder to the path to use <alias> instead of `multipass <alias>`.

Arguments are also supported

`nano ~/.bashrc #linux`

`nano ~/.zshrc #mac`

`PATH="$PATH:/home/user/snap/multipass/common/bin"`



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Page 2 of 3.

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Share data with an instance using "mount"

`multipass mount $HOME <instance>` /home/me will be available inside the instance.

`multipass mount $HOME <instance>:</instance/path>` Specifies the path inside the instance in which to mount the local path

`multipass launch --mount </local/path>:>multipass launch --mount /some/local/path:/instance/path` Specifies mount on launch

`multipass umount <instance>` Unmount all volumes from an instance

`multipass umount <instance>:</instance/path>` Unmount a specific volume from an instance

The recommended way to share data between your host and an instance with Multipass is the mount command

Share data with an instance using "transfer"

`multipass transfer <instance>:</instance/path/file1> <instance>:</instance/path/file2> </host/path>` Copy 2 files from the instance to the specified host path

`multipass transfer <instance>:</instance/path> </host/path/file1> </host/path/file2><instance>:</instance/path>` Copy 2 files from the host path to the specified instance path

use transfer to just copy files around. If a file is inside an instance, prefix its path with <instance name>:.

Miscellaneous

`multipass exec primary -- bash -c 'echo "PasSwOrD" | docker secret create secret-pass -'` create a docker secret in the primary node without storing it



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Page 3 of 3.

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